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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/652,296 | 08/31/2000 | John R. Hind | RSW9-2000-0113-US1 | 2854 |

7590 08/05/2004

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EXAMINER

HILLERY, NATHAN

ART UNIT PAPER NUMBER

2176

DATE MAILED: 08/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/652,296

Applicant(s)

HIND ET AL.

Examiner

Nathan Hillery

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 12-20 and 30-38 is/are allowed.
- 6) ☒ Claim(s) 1-11 and 21-29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to communications: Amendment filed on 4/30/04.
2. Claims 1 – 38 are pending in the case. Claims 1, 11, 12, 16, 18, 21, 25, 27, 30, 34, and 36 are independent.
3. The rejection of claims 1 – 11 and 21 – 29 under 35 U.S.C. 101 as being nonstatutory has been maintained.
4. The objection to the claim has been withdrawn as necessitated by amendment.
5. The rejection of claims 36 – 38 under 35 U.S.C. 112, second paragraph as being indefinite has been withdrawn as necessitated by amendment.

Specification

6. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;
- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

7. The abstract of the disclosure is objected to because it refers to purported merits or speculative applications of the invention and compares the invention with the prior art. For example, “the arrays of the present invention enable optimizing the processing speed, parsing overhead...” Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 101

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

9. Claims 1 – 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention amounts to functional descriptive data stored on computer-readable media. Because the claims fail to set forth any interaction with the claimed data structures, the claimed invention is non-statutory.

10. Claims 21 – 29 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. The claimed invention amounts to functional descriptive data. Because the claims are means plus function, the claimed invention is considered software per se in light of the specification (page 20, lines 17 – 20).

Allowable Subject Matter

1. Claims 12 – 20 and 30 – 38 are allowed.

2. The following is a statement of reasons for the indication of allowable subject matter: When the claims are taken in their totality, they describe a method of representing a document, specifically XML, using arrays. The prior art specifically Jamtgaard et al. (US006430624B1) teach that *in more detail, the intelligent harvester 22 may receive the content and generate a relational data structure 24 that corresponds to*

the content as described below in more detail. The data structure containing the content in a relational format in accordance with a preferred embodiment of the invention is a proprietary relational markup language known as RML. RML is an XML based language which has the advantage of permitting the easy mapping of the content into a tree structure by the tree synthesizer 26 so that the tree synthesizer may output a typical document object model (DOM) 28. The DOM is a common object model used to manipulate markup such as HTML such as it disclosed on the W3C web site at <http://www.wc3.org>. Although it is typically used for manipulating HTML or XML, it also to provides the tree structure needed by the layout engine as described below during the tree analysis functions. Generally, a tree data structure is a method for representing a hierarchy of data using tree diagrams formed from nodes and line segments between the nodes. This may be a bit confusing because the DOM's tree structure may be used for both its intended purpose of storing the HTML markup contained in atomics, but also as a way of storing relational information about those atomics ... (Column 5, line 54 – Column 6, line 10). However, the claims further describe the aforementioned method by generating various arrays for every type of component within the document and storing specific information about each type of component into the particular array.

Response to Arguments

3. Applicant's arguments filed 4/30/04 have been fully considered but they are not persuasive.
4. In response to Applicant's argument that claims 1 – 11 are statutory because it specifies "functional descriptive data stored on computer-related media" (pp 26 – 27), it

should be noted that the Office states and maintains that the aforementioned claims specify nonfunctional descriptive data stored on computer-readable media.

Consequently, as stated in the previous office action and as reiterated above, claims 1 – 11 are directed to non-statutory subject matter.

5. In response to Applicant's argument that claims 21 – 29 are statutory (pp 27 – 28), it should be noted that a system may be comprised of simply software. According to the specification, "The software programming code may be embodied on any of a variety of known media..." (Specification, page 19, line 11). In light of the specification, the system recited in claims 21 – 29 may be considered software per se as explained in the previous office action and reiterated above.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan Hillery whose telephone number is (703) 305-4502. The examiner can normally be reached on M - F, 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph H. Feild can be reached on (703) 305-9792. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


JOSEPH FEILD
SUPERVISORY PATENT EXAMINER

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